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ABSTRACT

This paper discusses findings from the first two years of a 6-year longitudinal study related to the recruitment, training, and retention of quality students into teaching. The paper highlights the importance of developing "adequate indicators" to guage our conceptions of quality and provides selected, standardized instrument data from the study's population as a basis for discussing the importance of commitment to teaching. The paper also explores the value of sustained or extended recruitment as a way to develop and monitor students' introduction to the teaching profession. Finally, the paper frames these data-based discussions within a critique of current reform agendas designed to recruit quality students. Contributions toward substantive reform in teacher preparation will arise only from teacher education research which sets out to expand intellectual parameters and to bracket public sentiment. (Appended is a list of 126 references). (Author)



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The Recruitment and Induction of "Quality" Students Into Teacher Education A Case Study

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ABSTRACT

THIS PAPER DIGCUSSES FINDINGS FROM THE FIRST TWO YEARS OF A SIX-YEAR LONGITUDINAL STUDY RELATED TO THE RECRUITMENT, TRAINING, AND RETENTION OF QUALITY STUDENTS INTO TEACHING. THE PAPER HIGHLIGHTS THE IMPORTANCE OF DEVELOPING "ADEQUATE INDICATORS" TO GUAGE OUR CONCEPTIONS OF QUALITY AND PROVIDES SELECTED, STANDARDIZED INSTRUMENT DATA FROM THE STUDY'S POPULATION AS A BASIS FOR DISCUSSING THE IMPORTANCE OF COMMITMENT TO TEACHING. THE PAPER ALSO EXPLORES THE VALUE OF SUSTAINED OR EXTENDED RECRUITMENT AS A WAY TO DEVELOP AND MONITOR STUDENTS' INTRODUCTION TO THE TEACHING PROFESSION. FINALLY, THE PAPER FRAMES THESE DATA-BASED DISCUSSIONS WITHIN A CRITIQUE OF CURRENT REFORM AGENDAS DESIGNED TO RECRUIT QUALITY STUDENTS. CONTRIBUTIONS TOWARD SUBSTANTIVE REFORM IN TEACHER PREPARATION WILL ARISE ONLY FROM TEACHER EDUCATION RESEARCH WHICH SETS OUT TO EXPAND INTELLECTUAL PARAMETERS AND TO BRACKET PUBLIC SENTIMENT.



INTRODUCTION

Efforts to recruit high ability students are founded upon any number of basic assumptions, one of which is that some relationship exists between academic achievement and teaching ability. Because of the swiftness with which such assumptions have been acted upon, one must ask whether the goal of such recruitment efforts is to enhance quality of image or quality of substance. What should not be assumed is that commitment to teaching will automatically develop in top students who have numerous career options for more attractive than teaching. The selection and recruitment of these high scoring students, therefore, becomes a formidable proposition.

Reports ranging from the Carnegie Foundation's *Conditions of Teaching* ¹ and the National Education Association's *Excellence in our Schools* ² to the Holmes Group's *Tomorrow's Teachers* ³ and the National Commission of Excellence in Teacher Education's *A Call for Change in Teacher Education* ⁴ have chronicled the need for recruitment of talented and committed young people into the profession of teaching and the need for restructuring their professional preparation. At the same time only five percent of college freshmen in the 1980s express an interest in becoming teachers ⁵ and those who demonstrate the greatest academic talent are the least likely to choose teaching as a career, ⁶ gravitating instead toward technology and medicine. ⁷ Nevertheless, a recent survey of a sample of academically talented high school seniors from throughout the Southeastern United States revealed that eight times as many students (25 percent) would seriously consider teaching as a career if certain preconditions such as salary, prestige, and positive community attitudes were met ⁸



Feistritzer, 1983.

² National Education Association, 1982.

³ Holmes Group, 1986.

⁴ National Commission for Excellence in Teacher Education, 1985.

⁵ Austin, 1983

⁶ Roberson, et al., 1983; Sykes, 1983b; Weaver, 1984

Downshower, 1982; Hankins, 1982

⁸ Brogdon & Tincher, 1986. See, also: Kemper & Mangieri, 1987.

While only a few teacher education institutions actively recruit academically talented persons into the teaching profession, 9 a variety of proposals addressing this problem have recently been suggested. These include: full-tuition scholarships, alumni involvement, honors programs, introductory teaching courses at the senior high school level, teaching corps fellowships, and guaranteed employment, 10 One example of recruitment efforts to this end was initiated by the Department of Education at Calvin College. 11 Born out of this decade's widespread agitation for reform in teacher preparation and a desire to enhance the quality of classroom teachers, the Departments' chairperson secured private funding and recruited 17 "top quality" high school students into a six-year innovative teacher preparation sequence known as the Bridenthal Internship in Teaching Program (BIT). 12 Such well-intentioned responses to cries for reform are not new to the teaching profession. Nor is it news that the validity of the assumptions underlying efforts such as the BIT program (e.g., that academically talented recruits will become "better" teachers) and their structural changes (e.g., stretching the professional coursework over four years) are largely taken-for-granted. 13 What we find most disturbing is the remarkable absence of any sort of independent evaluation mechanisms for such reform responses. For example, in a systematic review of teacher education program reform descriptions from 1980 through 1987, only a fragmentary amount (approximately one per cent) provided evaluative data. 14 Most of the articles reviewed provided descriptive and impressionistic data which were summative in nature and primitive in design. In short,



⁹ Laman & Reeves, 1982; Sears, et al., in press.

¹⁰ Clark, et al., 1984; Empey, 1984; Fox, 1984; Howard & Goethals, 1985; Schwartz, 1984; Shirng & Crawley, 1983; Sykes, 1983b; Tack, 1986; Wimpelberg & King, 1983

¹¹ Prior to the reform reports of this decade, The University of South Florida Sun Coast Teacher Training Program (Mann, et al., 1986; Roth, et al., 1985–86) offered scholarship to prospective teachers with high grade point averages or scores on standardized tests. By the mid-eighties, recruitment strategies had become more elaborate and more extensive, and had changed in focus. The Lyndhurst Fellowships at Memphis State and the University of Tennessee at Knoxville (Boser, et al., 1986; Saunders & Smith, 1986; Wiley, 1986; Wisniewski, 1986), and the Honors Scholars at Wright State University (Evans, et al., 1986), like the Bridenthal Internship in Teaching Program, are all designed to attract "high-ability" students into teaching, and provide a unique program of educational experiences for them.

¹² The name of this program, as well as its college, and participants have been altered.

¹³ Sears, et al., 1988.

¹⁴ Sears, et al., in press

little research documenting the effectiveness of recent reform efforts in teacher preparation and their underlying assumptions is currently available

ONE RESEARCH EFFORT

Concurrent with the Bridenthal Internship in Teaching program at Calvin College is an independent research project to evaluate the effectiveness of this reform-oriented teacher education program through a longitudinal study of the attitudes, expectations, and assumptions of those who are directly attendant to the program. The principals of this research, therefore, are the seventeen "quality" young people, the Bridenthal Interns, who were carefully selected to participate in the program.

The overalli purpose of this study is to independently document the strengths and weeknesses of the BIT program as it unfolds. Data generated from the study provide insight into the socialization processes of teacher preparation and, most importantly, the effectiveness of teacher education reform proposals of the eighties. It is hoped that through longitudinal and systematic study of the BIT program, evaluative information pertinent to teacher education reform can be generated.

The objectives of this paper are: 1) to describe the recruitment process through which the BIT initially attracted high ability students into teacher preparation; 2) to evaluate the success of the program's first two years of developing attitudes about and commitment to teaching and the education profession; 3) to provide a critical analysis of the assumptions about relationships between quality students and teachers which underly programs such as the one at Calvin College.; and 4) to raise critical issues regarding recruitment and induction practices within teacher education.



Research Methods and Techniques

This study, conducted by a three-member independent research team, employs a multi-stage design and a combination of qualitative and quantitative methods. 15 An overview of the design and methodology employed during the acclimation stage of the BIT program is provided in this section. 16

Individual, audio-taped <u>structured interviews</u> of the Interns, their parents, and the director of the BIT program were conducted at the program's outset. These interviews were designed to gather baseline data on such matters as program expectations, commitment to teaching, and career choice. Throughout the study, all audio-taped interviews are subsequently transcribed and standard analytic methods used. ¹⁷

Interns also completed, at this same point in time, four standardized instruments: The Self-Directed Search, a vocational counseling tool that, among other information, provides a summary code keyed to a specific occupation that matches with self-assessed skills and interests; ¹⁸ The Career Maturity Inventory, whose most common application is to screen individuals who are immature in their career decision-making process; ¹⁹ The Survey of Personal Values, used here as a means of identifying the values patterns of the Interns as a group; ²⁰ and, The Survey of Interpersonal Values, designed to gauge the values that respondents attach to relationships with other people. ²¹

At the end of the first year each Interr was interviewed again, both individually as well as in a large group. Each of these interviews focused, retrospectively, on their first year as Calvin students and as participants in the BIT program.

In addition to these structured interviews, <u>informal interviews</u> were conducted regularly with the Interns during social, academic, and professional occasions by one person who served as the on-site



¹⁵ For a discussion of the meta-theoretical assumptions guiding this type of inquiry, see: Sears, et al., 1986.

¹⁶ For a detailed discussion of the methods and techniques used during the first two years of this study as well as a complete set of research instruments, see: Sears, et al., 1986; Marshall, et al., 1987.

¹⁷ See, for example: Miles & Huberman, 1984.

¹⁸ Holland, 1985.

¹⁹ Crites, 1978.

²⁰ Gordon, 1984.

²¹ Gordon, 1976.

researcher During these conversations additional questions and issues emerged, and some structural corroboration of other data was provided. Interviews conducted in conjunction with classroom observations were most effective in picking up contextual cues and juxtaposing personal observations with participants' interpretations.

Complementing the interview and paper-and-pencil data collected during the first year were Interns' <u>personal journals</u> and <u>non-participant observation</u> data systematically collected from both formal and informal settings. Members of the research team observed these student during their weekly education seminars and interactions with other students. Interns maintained monthly journals which routinely were read and returned by the research team. These journals often included private concerns as well as descriptions of everyday life as Bridenthel interns. Fifteen of the seventeen Interns contributed journals.

Throughout the summer of 1985 (and each summer since this project began) these data were analyzed. Quantitative data were treated statistically while qualitative data were subjected to the processes of categorization and analytic induction. Triangulating data gathered through different methods provided additional insights into prior observations and enhanced validity and reliability.²²

Data analyses were largely iterative given multiple researchers, the nature and forms of the data themselves, and the various phases of analyses. Emerging from these summer analyses were themes and exploratory hypotheses which provided tentative direction for the researchers as they entered the second year of the study.

Beginning in year two, all interviews were videotaped and most, in addition, were simultaneously audiotaped. Videotaping provided the researchers with an enhanced record of what transpired during the interviews and was particularly valuah. for capturing the nuances and unspoken messages and interactions which occurred during the discussion. Videotaped data were evaluated using a frame-analysis technique. Interns took part in three interviews during their second year. Unlike the previous year, the interview structures (i.e., individual, small group, large group) and circumstances (i.e., telephone, in-person) were



²² Erickson, 1977; Sieber, 1973

purposefully varied. Also different was the direction of these second-year interviews. As interns' interests and perceptions evolved so, too, did the direction of the interviews.

Other data were collected during year two. Principal persons involved with the maintenance of the program were routinely interviewed. On the basis of first-year interview data, two paper and pencil instruments were developed. The first assessed attitudes toward teaching, Calvin College, the teacher education program, and peers. The second instrument was a survey that asked a variety of questions related to teaching as a career choice, teachers in general, and aspects of Calvin College and the BIT program.

A substantive design change took place at the close of the program's second year (spring, 1986). A cohort group (N=11) was selected from the pool of students enrolled in one of Calvin's introductory education courses. These students were at a point in their college program at which they would "declare a major" and were either beginning their planned study in education or investigating the possibility of a major in education. This group provided the researchers with an opportunity to compare and contrast the Interns' data with those of "typical" teacher education students at Calvin. Previously mentioned standardized instruments were administered to members of this Calvin College Cohort (CCC) group as they completed their second year at the college. Additionally, each cohort was individually interviewed concerning his/her attitudes about teaching, the teacher education program, and so forth.

At the same time that a new focal group entered the study, the pool of "outside" data was extended beyond parents and immediate program personnel to include faculty within the Department of Education at Calvin who had had the Interns in class. These interviews were individually conducted and, like all of the study's participants, faculty were assured of confidentiality and anonymity. Data from these interviews were especially helpful in providing a richer understanding — from a different, "outsider" perspective — of the Interns as students and as members of a very special group of future teachers. Following the completion of data collection for the second year, individual researchers conducted preliminary analyses of discrete data sets, met for a week during the summer of 1986 to do further work with their data, developed their findings, and "layered" their work together as a group. Again, like year one, the researchers generated tentative hypotheses, themes, and questions in order to guide their work in year three. In



addition, and to the point of this paper, they also arrived at some conclusions regarding the first two years of the Bridenthal Internship in Teaching program.

Findings Related to Student Characteristics & Recruitment

Recently, Brogdon & Tincher surveyed 629 high scoring (re: ACT & SAT scores) high school seniors throughout the southeastern U.S. in order to discover their opinions about teaching as a career choice and the factors/conditions which might make teaching more attractive. Only 3.3% of this group had selected leaching as a career, yet 25% reported that they would consider it and another 25% reported that they were uncertain whether they would consider teaching as a viable career option. According to the authors: "Many of this group (i.e., the 50% who would consider or were uncertain about teaching as a career) had considered teaching and would teach if preconditions concerning money, prestige, and community attitudes were satisfied." The authors conclude with the following thought:

If more "high aptitude" students are to be attracted to teaching, the profession will have to improve salaries, opportunity for advancement, social status, [and] attitudes of students, parents, and the community at large. 24

This recommendation sheds a particularly interesting light when seen in combination with the findings of Byers²⁵, who notes that "the image of a particular teacher education program may influence the kinds of students who are attracted to it." In other words, if a particular teacher education program were able to meet some of the preconditions cited by Brogdon and Tincher, perhaps that program would be particularly attractive to "high aptitude" or quality students. In many respects, the BIT program does this. Interns are provided with a \$2000 salary supplement during their first two years of teaching and have been kept in the public spotlight throughout the acclimation phase, thus satisfying their needs for status and improved community attitudes. The nature of the particular program, then, would seem to play an important role in enticing such students into teaching.



²³ Broadon & Tincher, 1986:13

²⁴ Brogdon & Tincher, 1986:14

²⁵ Byers, 1984.11

However, such a tactic still rests on a set of simplistic assumptions that take us no further toward an understanding of the characteristics of quality teachers. In this regard, the BIT program provides us with an unusual opportunity. Throughout our work, we have elected to bracket those assumptions (discussed in the paper's final section) in order to investigate the myriad of related variables and seek "adequate indicators" of quality. The findings presented here pertain to but two aspects of this investigation — student characteristics and program recruitment — and illustrate some distinctions between quality of image and quality of substance.

Student Career Decisions & Perceptions

One wishes to expect, at the outset, that the Bridenthal Interns will be quality teachers. Their presence at Calvin College already has done much to improve the image of that school's teacher education program and has impressed the public (local, state, and national) and the profession at large as well. Our data indicate that the Interns also have impressed administrators throughout their city's school system who have been offering jobs to the Interns since the program's inception. Nonetheless, it would be a mistake to confuse this quality of image with that of substance. Indeed, data from years one and two of our study reveal that members of the Intern group have, themselves, begun to question whether or not they will be "good" teachers.

Sharing the positions of other researchers, 27 we believe that quality teachers possess more than above-average test scores, grades, and high school rankings and that these academic characteristics are not pre-conditions to quality teaching. In an effort to assess and monitor a variety of the Interns' dispositional variables, we had the Interns complete several standard measures (Self-Directed Search [SDS]; Career Maturity Inventory [CMI]; Survey of Personal Values [SPV]; and Survey of Interpersonal Values [SIV]) and regularly employed additional surveys and questionnaires (developed from data collected through interviews).



²⁶ Savage, 1983

²⁷ See, for example: Lortie, 1975; McIntyre & Pratt, 1985; Zak, 1981.

Self-Directed Search. Research grounded in Holland's theory and use of the SDS has been conducted by a number of others relative to teacher education. Chapman & Hutcheson, for example, studied students who entered teacher education programs and subsequently changed career direction (NONTEACH) and those who remained in teacher education programs and entered the classroom (TEACH). Using Holland's basic description of teachers as predominantly social (S), artistic (A), and enterprising (E), they found that the patterns of differences between the TEACH and NONTEACH groups "tend to support Holland's description of teachers as particularly skilled at explaining, supervising, and organizing. Within Holland's model, those leaving teaching would be characterized as primarily investigative." Additionally, the authors noted that those in the NONTEACH group "appear to have gone into careers which often involve collaboration and team work" (p. 104). They conclude that their study supports the hypotheses that "individuals leaving teaching would assign greater importance to job autonomy and salary increases, while those remaining in teaching would assign more importance to recognition by other people, particularly supervisors and friends." 29

All of the Interns completed Holland's SDS at the outset of their freshman year. These data indicate that, as a group, the Interns are very near Holland's model teacher code (SAE) or norm: all Interns had an "S" in their code; 13 of 16 had an "S" as their first code attribute and three had it as their second; six Interns produced the actual SAE code; 15 Interns had two of the three attributes in their codes ("S," "A," or "E"); and 15 of 16 listed 'teacher' as an occupational daydream. These data suggest that this group of top high school students was well suited for teaching as their tertiary studies began.

The Interns' SDS scores also can be pondered relative to our small (N=11) group of self-selected Calvin College Cohorts (CCC). Where 81% of the Interns' had an "S" as their first code, 53% of the cohorts had the same; where 96% of the Interns had an "S" somewhere in their code, the same was true of only 63% of the cohorts. Similar differences are apparent in the numbers and variety of codes generated and occupational daydreams of these two groups. The Interns' SDS results reflect a more restricted assessment of occupational considerations than those of their CCC peers; comparatively speaking, results from the



²⁸ Chapman & Hutcheson, 1982: 103

²⁹ Chapman & Hutcheson, 1982: 104

Self-Directed Search suggest that the Interno are more comfortably suited to teaching than their Calvin peers.

Career Maturity Inventory. Speculation about the Interns' career fit from the SDS data is rited by their scores on the Career Matu. Ty Inventory (CMI) As a group, the Interns scored noticeably low on "independence," suggesting that their decision to enter teaching might have been influenced by others. Related questionnaire and interview data reveal that in many cases, Interns identified the program's Director (and recruiter) as the person who was most influential in their career decisions. Despite others' influence on their career decisions, the Interns' CMI data also indicate that they made "mature" decisions. Cohort scores were almost identical to those of the BIT group on this instrument. In fact, we find more difference within than between groups on the CMI.

Survey of Personal Values. "Goal orientation" and "achievement" were ranked 1st and 2nd by the Interns as important personal values, and most Interns scored in the average — high range on "decisiveness." Their scores on "orderliness" ranged widely, but most scores tended to be low regarding "variety." Again, CCC scores were quite similar and greeter diversity within the groups than between them was apparent. The low need for veriety distinguished both groups from the sample norms. Overall, both groups need challenging, significant activities that are well defined and planned.

Survey of Interpersonal Values. Interns ranked "benevolence" as their number one interpersonal value and "independence" second. Their scores on "benevolence" and "leadership" were measurably higher than the norm while their need for "support" was measurably lower. The CCC group also ranked "benevolence" first. Their "conformity" score was substantially lower than the norm and significantly lower than that of the BIT group. On balance, the groups differed in their need for support (more for CCC group) and conformity (more for BIT group) but were similar in the amount of importance they placed on "benevolence" — a characteristic of individuals in professions who work with and help others.

Results from these standard measures, coupled with data gathered from our on-going interviews, observations, and other attitude and survey measures, provide positive indications that the BIT group shares most all of the characteristics typically identified with teachers. What we find most interesting is that the range of these charact. 'stics varies greatly within the group. As the study progresses and each



Intern's composite data sets are analyzed, we expect to develop a more refined understanding of these differences as they pertain to the evolution of quality teachers.

Commitment to Teaching

Equally important in our work and that of others 30 is an effort to develop ways to assess and monitor the extent to which preservice teachers are committed to teaching and the education profession. Within this construct of commitment, we further attempt to distinguish between personal and professional motivations for teaching. We suspect that commitment to teaching and the profession are valuable attributes of a quality teacher and we posit that fluctuations in the nature, extent, and motivation of this commitment may result in variances in the quality of teaching. Using a combination of qualitative and quantitative data, we have found that more than half of the Interns (68.8%) expressed a long-term commitment (beyond five years) to teaching at the start of the BIT program and insist that they would have become teachers without the BIT opportunity. This measure had dropped to 40% at the close of year one but had risen to 70.5% by the end of the second year. These data show that levels of commitment can fall as well as rise and suggest that commitment can be developed over time. The reasons for these fluctuations are complex, largely individualistic and difficult to isolate, and such a discussion requires more time and space than this paper allows. However, our collective data indicate that teaching appears to be a comfortable career fit for most of the Interns, whose attitudes toward teaching and the profession were significantly more positive than those of the CCC group at the and of two years of college.

Assessing commitment becomes problematic in the case of a reform model like the BIT program because of the program's alluring nature. Designed to enhance the image of teaching to combat the professional malaise uncovered by early reform-minded critics, the program's recruits are showcased as change agents for a profession in need. We recognize that, while such a program is a positive strategy for developing commitment, it raises the question; commitment to the teaching/profession or to the program? During our analysis of the second year data, we attempted to separate these two ideas while maintaining the



³⁰ See, for example, Byers, 1984.

distinction between personal and professional motivators. Our resulting construct is largely generative in nature and will be useful as the program progresses. Ideally (in the case of substantive quality), one would hope to see Interns with strong commitments to teaching and the profession regardless of their commitment to the BIT program. Those more committed to the program alone, for example, might be less likely to find fulfillment as educators. Perhaps commitment to teaching/profession is tied to commitment to program, so that fluctuations in one result in fluctuations in the other? Despite the difficulty and nebulousness of such work, we believe that it holds promise.

One final point is helpful to the discussion of desirable characteristics in teacher education students. All faculty in Calvin College's Department of Education who have had Interns in their courses were interviewed. These interviews were designed to obtain information about the Interns' acquisition of professional knowledge and skills as well as the faculty's impressions of likelihood of classroom success. Preliminary analyses of these data suggest that the faculty do not see most Interns as unusually noteworthy students, but have few doubts that the great majority of them will be successful classroom teachers.

In short, we believe that the notion of commitment to teaching and the profession is a fruitful way to advance our understanding of quality in teacher education students and that dispositional variables (benevolence, independence, etc.), developing attitudes, and professional knowledge and skills combine to form this picture. We are operating under the assumptions that these commitments can be identified and described and that they are influenced by a variety of factors. Finally, we also believe that levels of commitment in teacher education students are inextricably linked to the nature of the teacher education program. One example of the integral relationship between student commitment and teacher education program is student recruitment.

RETHINKING THE CONCEPT OF RECRUITMENT

The BIT program set out to recruit, train, and retain quality students for the teaching profession.

Given the particular structure of its material incentives (i.e., students accumulate a scholarship debt which is entirely forgiven following their two year teaching commitment), it seems unlikely that any of the Interns will leave the program before its conclusion. Thus, one might conclude that the program's



recruitment goal was met when the Interns "signed on the dotted line." However, misconceptions about the relationship between quality teacher education students and quality teachers would remain unless the process of becoming a teacher is examined more closely. Beneath this surface we discovered several substantive qualities which are brought into focus when the notion of recruitment is expanded and made more complex.

We believe that eight of the seventeen Interns would probably have entered teacher education without the BIT program incentives. In a sense, then, it was the remaining nine who were recruited into teaching and were more likely (on the surface, at least) than their teaching-oriented peers to opt out of a teacher preparation program in its early stages. Up at these circum stances, the concept of recruitment can be seen as a process whereby students are enculturated into the world of the education profession. The objective is to develop within shese recruits a sense of commitment to the values of the schooling endeavor. Successful recruitment then might be determined by the extent to which this end is achieved. This can be thought of as sustained or extended recruitment. Such a notion is portrayed briefly in the following section, which describes how the Interns evolved during what we refer to as the acclimation phase (first three semesters) of the BIT program.

Intera Recruitment Practices

High ability high school seniors were offered an appealing forgivable loan package to attend a private college and take part in a once-in-a-lifetime opportunity to help rejuvenate the image of the teaching profession. Such is the characterization that the Bridenthal Interns gave to their introduction to the program. Local newspapers carried ads and school districts made and posted announcements of the program. The BIT program Director personally telephoned 35 area high school principals in an effort to locate quality students for teaching careers.

One hundred high school seniors initially responded, and 60 made it through the first round of screenings. Candidates were expected to have minimum SAT scores of 1000, do well on a written essay, and have what the Director called "tenacity" and "commitment." Individual interviews were then held, more cuts were made, and a final round of interviews occurred with each applicant and her/his parents.



Ultimately, seventeen students were named Bridenthal Interns. Recruited from the top five percent of their graduating classes, the group included several listed in *Who's Who Among American High School Students*; a National Merit Scholar, a class valedictorian; more than a few National Honor Society members, and regional and national award winners in areas ranging from Spanish and history to drill team and choir Generally, these 17 young men and women described themselves as "high achievers" who were "privileged" to be part of a unique program. Most saw their high school success in academics and extra-curricular activities as the key to their acceptance into this program, though several <u>added</u> that their commitment to teaching or their performance in the selection process might have created a favorable impression.

Additionally, every intern indicated that, regardless of their acceptance into the BIT program, s/he would have pursued a college education somewhere. Moreover, about one-half of the Interns indicated that they would be attending Calvin College. Eight said they would still be education majors; seven felt they would be majoring in some other field; two were uncertain.

More than half of the Interns disclosed that one or both of their parents reacted less than positively upon first learning of their child's interest in the program. These parents questioned the wisdom of teaching as a career choice and cautioned about the financial burden should their son or daughter decide to leave the program. With respect to career considerations, the "helping professions" (nursing, social work, etc.) were cited by the group three times as often as other career sorts. All but four of the Interns had seriously considered non-teaching careers.

The two primary attractors for entering teaching, cited by Interns upon entering Calvin College, were the opportunity to interact with others, particularly children, and a sense of educational mission. By the end of their first year only one attractor was found to be pervasive throughout their interviews: the desire to revitalize teaching and reform the profession. These tasks were ones they saw themselves as uniquely qualified to perform.

intern Acclimation to the Profession

The formal recruitment of these students into the program ended when they and their parents signed on for the program and its accompanying financial contingencies. Recruitment into the profession of



teaching (or sustained recruitment), however, had just begun, this point marked the onset of the acclimation phase of the Brioenthal Internship in Teaching program.

During early interviews, the students sounded as though they were public relations spokespersons for the program. More than half described the BIT program as a way to attract "top ranked" students like themselves into teaching and nearly half felt the program would play an important role in national educational reform efforts. They described themselves as a committed group of change agents.

As they neared the end of the program's acclimation phase (Winter, 1985-86), one of the dilemmas voiced by several Interns was their recognition of the types and degrees of commitment which had taken shape among the group's members. Each intern described her/himself as committed, but several questioned the motivations and commitment of some of their peers. From the Interns' perspective, in other words, their original sense of 17 young persons sharing a common purpose and commitment no longer fit with their every day observations. As they recognized this, doubts about the accuracy of their original impressions emerged. Early group descriptors such as "highly intelligent," "interested in teaching," and "highly motivated" were far less frequently applied as time passed.

One of the Interns' important and clearly articulated programmatic perceptions during the acclimation phase was their feeling of "specialness." The early period of the program, in fact, was designed to create such feelings. However, a good deal of pressure and anxiety accompanied the special attention they received. For some, their campus notoriety required the regular defense of their decision to enter the program and become a teacher — a situation that led to an eventual public distancing from BIT recognition. For others, the added academic requirements of BIT seminars and BIT projects made an already difficult college degree plan demanding. Overall, the Interns developed a keen awareness of their public image and struggled to cope with it at all costs.

As they neared the conclusion of their second year, the Interns noted annoyances with the apathy of some of their BIT peers and the decreasing amount of attention being paid to them by the program Director and the public-at-large. "Jealous overtones" were reported by several who described acts of favoritism on the part of the Director. Other Interus were annoyed with the elitist attitudes held by Calvin's students and faculty — attitudes reflected in their campus label "Bridenthal Brats."



Despite their social concerns, members of the group managed to maintain a deep concern for their career choice. By the end of their third semester they had put a considerable amount of though: into becoming teachers. They perceived themselves as more aware of the teaching process, better read in public policy issues, and better able to discuss the importance of community support and media on the future of teaching than others who had not had their unique BIT experiences. They believed themselves to have a realistic image of teaching and expressed confidence that they would succeed in it.

Many of the Interns spoke publicly at conferences and public forums ranging from their state teachers' association conference to the American Association of Colleges of Teacher Education conference.

The impact upon those who addressed these audience was enormous. "I have a future stake in what I say," recalled one of the Interns. "I have never been more proud to be an education major. We took the stage. All I remember after my speech was the earth-shattering applause."

By the end of the acclimation phase, most Interns had participated in at least one public forum, and several had journeyed to three or more conferences, speaking in all parts of the country. Recalling each of these speaking engagements, Interns noted delivering a "message of hope" and exhibiting a strong sense of pride and enthusiasm for their futures as teachers. Most Interns believed they would bring powerful and positive benefits to the profession.

Intern Transition from Acclimation to Specialization

In the spring semester of their second year the Interns were mainstreamed into the "regular" teacher education program at Calvin. They attended education courses with non-Interns and began to see similarities and differences among and between the two groups. For us, this represents the beginning of the specialization phase, when thinking is redirected from the profession of teaching to the act of teaching.

The acclimation phase of the BIT program served an important function for these Interns. During this period, every effort was made to provide these future teachers with a broad array of knowledge and experiences relative to the teaching profession. Beginning with a wide angle lense, Interns read, discussed, and wrote about national educational concerns. From there, they focused on statewide issues and reform efforts, and finally they zoomed in on issues confronted by their own city's school districts. Additionally,



the Interns spent much time microscopically examining a particular school and its community. Throughout this sequence the Interns both listened and spoke to powerful educators and lay persons (national educational reform proponents, state school board personnel, the city's mayor, school superintendents and principals, teachers, students, and school parents) involved in the schooling process. The acclimation phase presented, in global terms, schooling's philosophical, political, and organizational underpinnings; it gave Interns "the big picture" of their future profession.

As noted, this focus progressively narrowed. During semester three, as Interns began to concentrate on single schools, larger philosophical concerns were eclipsed by more discrete, functional ones. Returning to some of the same schools they knew as students, the Interns began to see schooling in a new light. Global issues relating to the quality of the teaching force and declining student achievement were seen in juxtaposition to teachers' struggles with curriculum materials, community interests and student motivation. As the acclimation phase began its metamorphosis to the specialization phase, concerns about being an intern were transformed into ones about becoming a teacher. It was at this point that Interns began to build a more realistic nicture of teachers and teaching.

By its very nature, the program's early curriculum brought the group together. Campus notoriety, national publicity and numerous speaking engagements before local, state, and national gatherings of educators were among the experiences which served to bring a sense of groupness to the Bridenthal Interns. Structural aspects of the program such as weekly meetings and a specially assigned mentor promoted the same end. At the close of their first year, virtually all of the Interns identified closely with the group and saw themselves as more like than unlike the group's other members. All were "special people" sharing the dream of becoming a new breed of better teachers. All understood themselves to be public ambassadors-at-large to the teaching profession.

As the acclimation phase progressed, however, this cohesiveness began to decay. During their third semester, regular meetings disappeared and group activities diminished. By the end of the second year the BIT program had virtually disappeared, and the group v. as touched by its disintegration. Fewer opportunities to attend and speak at professional gatherings and a fading conspicuousness as Bridenthal Interns were interpreted differently by the Interns. Those activities which defined the Interns as a group



and validated their sense of specallness were sorely missed by some, while others recognized the loss of these same phenomena as personally liberating. The time had arrived for the Bridenthal Interns to begin the process of defining themselves—both as individuals and as future teachers.

Adopting this understanding of sustained or extended recruitment allows us to see that unlike most typical teacher education programs, the early BIT curriculum spent considerable time "deprogramming" the ideas and beliefs that Interns might have brought with them (e.g., focus on individual classroom or perspectives held by students and public-at-large) and instilling in them a strong background for and belief in reform. We sense that this period of professional enculturation is rather unique compared to the typical educational foundations of other teacher education students and has done much to engender a deeper sense of commitment to teaching and the education profession in the Interns.

On a different level, our work speaks loudly to the importance of maintaining attention on beginning teacher education students. Becoming a Bridenthal Intern was but the beginning for these "quality" students. Bearing their sense of specialness required an enormous amount of time and effort from them as well as those who were responsible for their program. Furthermore, the reform mantel each intern was awarded fit differently, at different times, for different reasons and was both clutched and cast off during periods of their acclimation.

We are becoming more convinced that these and other features of the BIT program will go far in our efforts to better understand the professional development of quality pre-service teacher education students. The extent to which this program, or aspects of this program, can be useful as a model for improving teacher education in general remain to be seen and judged by all interested parties. A great deal was taking place throughout the first two years of the BIT program. Those who believe that reform was in place once these 17 young people entered Calvin College are sorely misguided.



RECRUITMENT OF "QUALITY" STUDENTS: A CRITICAL ANALYSIS

The ritual of the reports and their calls for reform is to reestablish the support and faith of the public concerned about schooling and teacher education the intent is to reassure one's constituencies, not to pursue substantive change in day—to—day operations. 31

The Metaphor

Repairing homes is in some ways analogous to reforming teacher education. The motivation for home maintenance is more often to improve its image than its substance. Image changes often come as a result of a felt need to try something different — to keep up with recent innovations— to create a better appearance. Sometimes we simply wish to patch—up a problem until we have the time and resources to attend to it later. Substantive changes often come about as a result of a crisis of one degree or another (e.g., a leaky roof, crumbling plaster on the ceiling, or windows that no longer keep out winter wind). Substantive changes are naturally accompanied by image changes whereas image changes can be accomplished with little or no attention to substance (e.g., scraping and burning—off old paint and resealing the surface before repainting vs. painting over existing surface).

Home maintenance decisions, and the degree to which they are substance and/or image choices, depend on any number of related variables such as available capital, time, energy, expertise (or, in some cases, an adventurous spirit), and an understanding of the nature of the problem (if any) underlying such decisions (e.g., dealing with cracked and bulging walls or drooping ceilings). Just as important are the reasons and circumstances behind maintenance decisions. Are we making them in preparation for selling the house, as a temporary measure until more permanent improvements are possible, or as a part of a grand scheme for our future comfort and enjoyment? Nowadays, the question of how these changes will affect the overall saleability of the house is equally compelling.



³¹ Cornbleth, 1986:10

Deciding to alter substance opens many possibilities, while altering image restricts those possibilities. Thus, tearing out old walls allows us the chance to move electric fixtures, reconfigure the shape of the room, or relocate doors and windows; painting or papering provide no such options.

What is to be changed? Why should it be changed? To what extent are we able to carry out the change? How long should it last? How will the change affect our quality of life? These questions guide home maintanance decisions. The sources and circumstances from which they arise come together to play a major role in the ultimate nature of the changes themselves.

As educators, we share a common professional home: teacher education. We are in the midst of a major maintenance effort about which some of us share enthusiasm and commitment. The extent as well as the desirability of this work has been not so quietly debated. This debate, though, has been speculative, since the maintenance has not actually been completed and evaluated. As we ask ourselves to assess the quality of workmanship and architectural design of those programs which are aimed at teacher education renovation, the debate enters a new phase.

This section examines the nature of reform efforts to recruit and prepare "quality" students for teaching, and the assumptions which guide these efforts. Based upon results of the first two years of the BIT program, substantive improvement of the teaching workforce will take more than raising entrance requirements for teacher training or enticing academically talented students into our Schools and Colleges of Education.



The Foundation

The research on students of teaching over the past decade tends to be desultory in nature, poorly synthesized, and weakly criticized. Although there has been a good deal of data gathering and thought, there seems to be an excess of the former and a dearth of the latter. As a consequence, misrepresentation and overgeneralization of research findings has occurred in response to growing public interest. A serious need remains for improved study and scholarship. 37

One of the greatest concerns among the public and the most widely researched areas within teacher education is the academic ability of teachers entering our nation's schools. Teacher education graduates of the early 1980s, particularly those most interested in teaching as a career, are generally less academically talented than those who graduated a decade earlier. 33 Between 1973 and 1982 the decline in the SAT, ACT, GRE, and NTE scores of prospective education majors fell more rapidly than those scores for students intending to pursue other areas of study 34 A more recent study of teacher education graduates at a midwestern university from 1982–1985 revealed that, while these graduates were significantly inferior to non-teacher graduates on all 4CT scores, they had significantly higher cumulative GPAs. Academic ability, too, is inversely related to the probability that a student will continue as an education major through graduation. 36

There are several considerations that should temper interpretations of these claims. First, these data, largely gleaned from SAT and ACT scores, are gathered from college-bound seniors who declared an intention to major in education: Use of these data to infer the academic quality of the teacher workforce, however, is questionable. The vast majority (80%) of high school seniors who note their intention to major in education never follow through with their original plans.³⁷ Moreover, between one-quarter and



³² Lanier & Little, 1986:535

³³ Pigge, 1985

³⁴ Borkow & Jordan, 1983; Feistritzer, 1983; Laman & Reeves, 1982; Weaver, 1979; Weaver, 1981

WEGYER , 1301

³⁵ Barger, Barger & Reardon, 1986

³⁶ Bethune, 1981

³⁷ Nelson, 1985

one-half of those students who receive certification will not enter the classroom ³⁸ Finally, a great proportion (50-75 percent) of teachers who, as high school students, had not indicated education as a likely major wound up, as college graduates, teaching.³⁹ As we noted earlier, even the Bridenthal interns — a group carefully selected and groomed to play a special role in teacher education reform — experienced serious reservations about their own commitment to classroom teaching.

Second, little attention is given to the range of these scores; there has been an over-reliance on the reporting of mean scores. 40 More than ten percent of those college graduates who scored high on the verbal and math measures of the SAT entered teacher education programs, 41 and the majority of these students joined the workforce as classroom teachers. Citing these and other data, a lengthy review of current research on teacher education asserts:

Teacher education does not fail to attract and retain persons with high ability. If there is a failure, it is that teaching does not get as many as might be hoped from the highest scoring test takers, but it does attract and retain many bright people. Actually, the failure that is supported by data . . . is that too many persons with excessively low scores on academic measures are allowed into teaching 42

Third, during the past half-century a multitude of conferences, committees, symposia, monographs, studies, surveys, and reports have addressed teacher training. Little research, however, has been directed at understanding what goes on within the institutional "black box" of teacher training. 43 Most research has focused on the quality of individuals entering teacher training institutions rather than on the nature of those institutions, the status of the teaching profession, or the relationship of the program content to "teacher quality." Our research indicates that a number of Interns struggled noticeably with the extra requirements and responsibilities of their program. A few even found themselves in academic



This statistic has remained remarkably constant during the past three decades. See, for example: Metz & Crane, 1980; National Education Association, 1960; Pavalko, 1970.

⁵⁹ Everden, Gamble & Blue, 1935; Nelson, 1985; Riccobono, 1981

⁴⁰ Getzels & Jackson, 1963

⁴¹ Vance & Schelechty, 1982

⁴² Lanier & Little, 1986:539

⁴³ The few relatively fine descriptive studies include. Feiman-Nemser & Buchmann, 1986; Giroux, 1981; Popkewitz, 1978; Popkewitz, et al., 1979; Sears, 1984; Smith, 1978; Zeichner, 1980.

difficulty Without the help of their graduate student assistant and, on occasion, the program's Director, some may not have lasted through the first two years.

The concern about quality teachers, however, has rarely been discussed from these perspectives. Many educational researchers and teacher educators conclude that "the teaching profession is attracting and retaining fewer academically able young people," 44 and the public, in the most recent Gallup Poll, 45 cites the "difficulty in getting good teachers" as the fourth most pressing concern confronting public schools. This image of incompetent individuals entering teaching has become so pervasive that some institutions have marketed themselves as "quality assurance programs" warranting their graduates to prospective school districts. 46

Within this discussion, students' academic competence is most commonly associated with the quality of teacher education students. 47 While an extensive selection of criteria has been used to select prospective teachers, 48 the most widely used and researched criteria for admittance into the profession of teaching are academic performance and ability. 49 A recent survey of ϵ teacher education institutions throughout the country, for example, found that each had established a minimum cumulative GPA for admission. The average expected GPA was 2.25 (out of 4.0). Almost half (42 percent) of these institutions required students to maintain GPAs of 2.5 or better in professional education courses in order to graduate. 50 However, as Geraldine Brownlee observed, 51 "when grade inflation is accounted for, GPA increases must be discredited."

While a trend toward raising GPA as a criterion for admission has been noted in several studies, one survey of 121 teacher preparation institutions revealed that, in the vast majority of institutions, only a



⁴⁴ Darling-Hammond, 1984:2

⁴⁵ Gallup & Clark, 1987

⁴⁶ Barr, 1985; Barr, 1987; Reagan, 1983; Schalock, 1987a; Schalock, 1987b

⁴⁷ Denton& Smith, 1983; Fratiani, 1979; Jenkins, 1978; Wahlstrom & Danley, 1979, Weaver, 1983

⁴⁸ Brownlee, 1985; Reed, 1976; Shank, 1978

⁴⁹ Brownlee, 1985; Carpenter, 1973; Gress, 1977; Laman & Reeves, 1983

⁵⁰ Ishler, 1984

⁵¹ Brownlee, 1985:53

handful of students failed to meet this criterion. Additionally, those who failed reapplied and were admitted when the GPA requirement was removed. 52

Preservice teacher: according to some researchers, \$53 do not compare favorably in academic terms with college students majoring in other fields. Other researchers, \$54 however, have disputed this claim. Whether, in fact, there are significant differences in academic performance or ability between education and non-education majors is clearly debatable. Less arguable, however, is that many acalemically talented women who have traditionally entered the teaching force have chosen other career paths and that the least academically able persons remain in teaching. \$55 Women whose high schooly prades are higher, whose academic degree intentions are higher, and whose post-college graduate marriage intentions are less immediate are more likely to enter what, historically, have been non-traditional career fields for them. \$56 We believe that a group like the Bridenthal Interns, which consists of academically able young people (most of whom are women), provides a unique opportunity to set aside the "academic competence" factor and look more closely at other criteria (e.g., commitment to teaching) as well as the experiences and interrelationships which represent "becoming a teacher."

Of those persons, male and female, who do enter the classroom, a startling proportion (iwo-thirds) expect to leave within five years. 57 Teachers in the upper 20 percent of measured verbal ability are three-times less likely to intend to teach at age 30 than those with the lowest verbal ability. 58 These expectations are borne out by teachers' actions: 40 percent leave the profession within just a few years. 59



⁵² Laman & Reeves, 1983

⁵³ Pigge, 1985; Roberson, et al., 1983; Sykes, 1983; Vance & Schlechty, 1982; Weaver, 1984

⁵⁴ AACTE, 1984; Book, et al., 1985; Dupuis, 1984; Fisher, 1984; Fisher & Feldman, 1985; Krockover, et al., 1987; Loadman, 1983; Nelli, 1981–82; Nelli, 1984; Olsen, 1985; Villeme & Hall, 1985. The apparent inconsistencies of these data and the tendency of advocates for teacher education reform to cite selective research studies bolstering their arguments provide the context for a conclusion rendered in a recent review of research on teacher education (Lanier & Little, 1986:?) "The research on students of teaching over the past decade tends to be desultory in nature, poorly synthesized, and weakly criticized. . . . As a consequence, misrepresentation and overgeneralization of research findings has occurred in response to growing publi interest."

⁵⁵ Feistritzer, 1984

⁵⁶ Sullivan, 1981

⁵⁷ Mason, 1966

⁵⁸ Vance & Schlechty, 1982

⁵⁹ Mark & Anderson, 1985; Pavalko, 1970, Schlechty & Vance, 1983

and those who remain in teaching are less academically able than those who leave the profession ⁶⁰ In a recent analysis of three groups of college students with teaching certificates, David Chapman⁶¹ found that the quality of a person's first year teaching experience is more strongly related to teacher attrition (within five years) than either their academic performance or the perceived adequacy of their preparation program. Again, the BIT study will provide valuable data in this regard, although we suspect that actual classroom teaching may be too narrow a focus for understanding commitment to teaching, pedagogical commitment may prove to be a more fruitful point of inquiry.

Equally evident is the common image constructed by <u>both</u> teacher education students and education professors of a "typical" education major: a person who "makes the grade" but who rarely exerts herself, preferring instead to engage in campus social life. Equation 1 in a mage of education as an "easy major" generally has been attributed to the caliber of entering education students and the ensuing lack of rigor in their professional program. Clearly, the Bridenthal Interns did not see their first two years as an easy major. Data collected during the specialization phase suggest that their perceptions of the "regular" education program at Calvin are more complex than even we anticipated.

While academic ability and performance are not the only factors in the formula for an "effective teacher," most teacher educators, as far back as Boyce's 63 early studies, consider such factors necessary preconditions or, at minimum, characteristics that do not put teachers at a disadvantage in the classroom. 64 Summarizing research on effective teachers, Brophy 65 echoes this commonplace belief when he concludes, "Effective teachers....are *probably* brighter and more dedicated than average." (emphasis added)



⁶⁰ Pavalko, 1970; Pigge, 1985; Schechty & Vance, 1981

⁶¹ Chapman, 1984

⁶² Sears, 1987

⁶³ Boyce, 1912

⁶⁴ Vance & Schlechty, 1982; Vance & Schlechty, 1983

⁶⁵ Brophy, 1982:529

Data supporting Brophy's contention are containly ambivalent. ⁶⁶ For example, in comparing grades earned in preservice teacher education courses, several studies found no significant relationships between that variable and chances for employment, job satisfaction, or longevity in the teaching profession. ⁶⁷ These data, however, contradict those reported elsewhere. ⁶⁸ Moderate, positive correlations (ranging from .43 to 52) have been found between objective measures of classroom competencies of student teachers and their NTE scores, ⁶⁹ their cognitive levels, ⁷⁰ and grade-point averages. ⁷¹ Analysis of the Coleman data also has found positive relationships between teachers' verbal abilities and student achievement. ⁷² However, these research findings are the exception rather than the rule.

Other researchers ⁷³ report principal ratings of teachers' success (after four years of teaching) and student academic performance to be *inversely* related to both general education and overall college GPA. That is, the higher the principal's assessment of teacher success and the better the students' performance, the lower the teacher's college academic average. Morover, in another study, ⁷⁴ neither scores on the NTE, teachers' academic averages, nor supervisors' ratings were predictive of principals' estimates of their teachers' classroom performance. These studies are reflective of a larger body of research which has found no significant relationship between teachers' intellectual performance (e.g., strong collegiate academic performance, high scores on college aptitude on individual standardized achievement tests) and teaching



⁶⁶ Brophy's assertion is not supported even within his own paper. Among the eight teacher characteristics/benefits associated with producing student learning gains which he contends are supported by research are teacher expectations, classroom management, mastery teaching, and curriculum pacing. Characteristics commonly associated with "bright persons" are *not* discussed.

⁶⁷ Perry, 1981; Villeme & Hall, 1980

⁶⁸ These reports are reviewed in Weaver, 1978.

⁶⁹ Piper & O'Sullivan, 1981

⁷⁰ Tiller, 1981

⁷¹ Jones, 1956

⁷² Hanushek, 1972; Bowles, 1970

⁷³ Maguire, 1966; Shim, 1965

⁷⁴ Thacker, 1965

success (according to principal ratings).75 Data from our ongoing study will prove valuable in understanding these and related aspects of classroom success.

The Problematic

Part of this lack of consensus among research studies is conceptual. What does one mean by "quality students" and how does one define "success in teaching?" Another contributing factor to conflicting conclusions is methodological: How does one measure these two concepts? For some researchers "quality students" are conceptualized as evidencing superior academic knowledge, 76 verbal ability, 77 and cognitive development. 78 Measurement of "brightness" ranges widely: NTE scores; 79 overall college GPA; 80 noneducation GPA and participation in an honors program;81 verbal understanding;82 pre-teacher training interviews; 8.3 ideational fluency; 84 professional recommendations; 85 self-reports; 86 and Piagetian counitive level. 87 Similarly, the conceptualizations and measurement of "success in teaching" are equally diverse and problematic: longevity in the profession; 88 job satisfaction; 89 classroom competencies; 90 and pubil achievement 91 have all been called into service.



⁷⁵ Emanuel, et al., 1975; Jencks, et al., 1972; Massey & Vineyard, 1958; Quirk, 1973; Siegel, 1969; Silverston, 1984; Summers & Wolfe, 1975; Taylor & Miller, 1985; Washburne & Heil, 1960. One researcher (Baker, 1970) concluded that these factors were insignificant predictors of teaching success when variables, such as screening interviews, were controlled.

⁷⁶ Villeme & Hall, 1980

⁷⁷ Nelson, 1985

⁷⁸ Tiller . 1981

⁷⁹ Piper & O'Sullivan, 1981

⁸⁰ Maguire, 1966

⁸¹ Stege1, 1969

³² Ryans, 1960

⁸³ Baker, 1970

⁸⁴ Guilford, 1959

⁸⁵ Perry, 1981

⁸⁶ Ryans, 1960

⁸⁷ Tiller, 1981

⁸⁸ Villeme & Hall, 1980

⁸⁹ Villeme & Hall, 1980

⁹⁰ Piper & O'Sullivan, 1981

⁹¹ Shim, 1965

All of these data challenge Brophy's statement that "effective teachers...are probably brighter and more dedicated than average" 92 and lend credence to the conclusion of Schlechty and Vance: "We are aware that no convincing evidence links measures of academic ability to teacher effectiveness." 93 This conclusion has also been reached by others who have systematically reviewed the literature.

Educational researchers in general, and teacher education researchers in particular, seldom address these fundamental questions. We appear to operate under two questionable assumptions. "These assumptions, each of which is an important precondition for establishing stable relationships among variables, are: (1) Educational phenomena are natural, and (2) There is one best solution for any teaching problem." With regard to teacher recruitment, assumption number one tells us that quality teacher education students will be quelity teachers; assumption two suggests that we simply need to go out and recruit quality teacher education students.

Aside from the obvious problems with the assumptions noted above, a further — and perhaps more harmful — assumption is rampant throughout much of the present research and dialogue pertaining to teacher education reforms. Beneath the already questionable assumptions that quality teacher education students will become quality teachers and that what we need to do is recruit a better quality student lies the operational assumption that quality (in teacher education students) is defined as academic achievement/ability. Surely the most notable and often cited promoters of this belief are W. Timothy Weaver, Victor Vance and Phillip Schlechty.

In his recent text *America's Teacher Quality Problem*, Weaver ⁹⁶ simplifies the discussion of 'sacher quality by defining it as academic ability. He then curiously offers the following remarks: "Academic ability is one measure of teacher quality, but it is not the only one and perhaps not even the most important measure. Certainly it is not the one often found in the history of teacher quality debates."



⁹² Brophy, 1982:529

⁹³ Schlechty & Vance, 1983:101

⁹⁴ Getzels & Jackson, 1983; Pugach & Raths, 1983; Morsh & Wilder, 1954; Sykes, 1983a

⁹⁵ Tom. 1980:19

⁹⁶ Weaver, 1983:270.

⁹⁷ Weaver, 1983:1

Despite the questionable value of electing to incorporate the teacher quality = academic ability equation, Weaver offers two reasons in defense of his choice. First, the obverse (academic ability is not at least one measure of teacher quality) is unacceptable given the role of teachers within the schooling phenomenon. Second, our profession has not yet decided what teacher quality means and, therefore, this criterion is as valid as another. The suspect equation of teacher quality = academic ability is not, in Weaver's view, "a definition that educators will agree on but one that is unarguably important and of self-interest to educators for other reasons having to do with legitimating claims for support of public schooling. Like it or not, if there is public doubt, it will prove necessary for the teaching profession to demonstrate that its members are literate." 98 In short, we must attend to our image.

Victor Vance and Phillip Schlechty are also proponents of the call for securing better teacher education students. They employ a rationale similar to Weaver's, finding it of "technical significance," for example, that "... whereas the ability to score high on measures of academic ability may not assure competence, scoring low on such measures does not give one an advantage over the competition." These authors are neither arguing that students with high academic ability will be better teachers nor that those with low academic ability will make poor teachers, they simply believe that "... all things being equal, demonstrated intellectual ability is an advantage in the classroom. It is certainly not a disadvantage." Of no minor importance, of course, is that those "things" Vance & Schlechty allude to (students, resources, administrators, environments, etc.) are never likely to be equal and are the very stuff that combine to determine substantive quality. Eventually they arrive at an argument for "political significance":

Although some educational theoreticians and researchers may regard the link between measured academic ability, technical and instructional competence, and effective teaching as tenuous, politicians and policy makers have demonstrated their strong belief in the existence of such a relationship. 101



⁹⁸ Weaver, 1983:4.

⁹⁹ Vance & Schlechty, 1982:25

¹⁰⁰ Vance & Schlechty, 1982:25.

¹⁰¹ Yance & Schlechty, 1982:25.

In other words, despite what we (educators) know that we don't know (i.e., that there is no established causal link between academic ability and quality teaching), we must pursue the public's educational reform agenda (and its concomitant research agendas) for our own good. Again, public perception delimits our intellectual parameters; public language dominates our educational discourse, public image translates into program substance.

Their logic looks something like this: To improve the quality of public school education we must improve the quality of teachers (quality of education = quality of teachers). To improve the quality of teachers we must improve the quality of teacher education students (quality of teachers = quality of teacher education students). Throughout this thinking, QUALITY, at least at the input and output points, is defined as ACADEMIC ACHIEVEMENT/ABILITY. Thus, by recruiting, training, and retaining quality (i.e., high scoring) persons into teaching, the quality of education will improve.

As noted in our review of the literature, this is more an expression of faith than a law-like formula. The opaque certainty that such an expression reveals reflects a technical and crudely rational approach to education that bears little resemblance to either the research literature or everyday classroom activities. Suggested by our interest in student characteristics and our narrative description of the BIT program's acclimation stage, and reflected in our research design, is our respect for the emergent nature of teacher preparation phenomena. Relationships between quality students and their teacher preparation are anything but simplistic; their success as classroom teachers is expected to be even more contextually related and idiosynchratic in nature.

The Reiterated Point

Contributions toward substantive reform in teacher preparation will arise only from teacher education research which sets out to expand intellectual parameters and to bracket public sentiment.

Questions of purpose, substance, and values as well as critiques of existing structures, beliefs and assumptions must be the foundation for any research endeavor. This implies a rejection of what Catherine



Cornbleth terms the "ritual of tec" local rationality 102 in teacher education which concerns itself with control, measurement, and certainty. In short, the search for the "silver bullet" is misguided. Teacher education reform must incorporate multiple perpectives, employ a variety of initiatives, and institute storages.

Current reform efforts such as the recruitment of quality students reflect "the limited perceptions many in the public hold of teacher education [and teaching], inspired by long-standing prejudices and 'commonsense' notions." 103 The preeminent strategy in most recent calls for change is to enhance the public image of teacher education by appealing to public taste: "People seem to assume that higher standards somehow enhance both teaching and learning, that more is better, and that quantity becomes quality." 104

As long as we accept this simple cause—and—effect relationship, we will spend little time or effort wondering about or investigating deeper and less "obvious" phenomena related to the teaching/learning process. Equally tragic is the effect that such assumptions have on the manner in which we conceptualize our efforts. Instead of wishing to better understand our profession in all of its multiple contexts and permutations, we reduce it to its simplest and most crude forms. Rather than liberate, we conserve; rather than attempt to improve the quality of teacher education substance, we seek to carefully manicure its landscaped image. With little skepticism, we busy ourselves recruiting "better" teacher education students on the assumption that they will be "better" teachers who will produce "better" students. Are we all really this naive?



¹⁰² Cornbleth, 1985

¹⁰³ Imig, 1985:120

¹⁰⁴ Cornbleth, 1985:6

REFERENCES

- American Association of Colleges for Teacher Education. (1984). 1984 report to the profession (ERIC Document Reproduction Service No ED 244 954)
- Austin, A. (1983). *The American freshman* Los Angeles, CA. American Council on Education/University of California at Los Angeles.
- Baker, L. (1970). An analysis of some assumed predictors of success in teaching. Unpublished doctoral dissertation. United States International University.
- Barger, J., et al. (1986). *The academic quality of teacher certification graduates and their employment histories.* Paper presented at the 1986 annual meeting of the American Association of Colleges for Teacher Education. Chicago, IL. March 1-5.
- Barr, R. (1985). The warranty, one year later. Phi Delta Kappan. 67(2), 144-146.
- Barr, R. (1987). Reform of teacher education and the problem of quality assurance. Journal of Teacher Education. 38(5), 45-51.
- Bethune, S. (1981). Factors related to white females' choice of education as a field of study during college: An analysis of the national longitudinal study of the high school class of 1972.

 Unpublished doctoral dissertation. University of North Carolina at Chapel Hill.
- Book, C., et al. (1985). Comparing academic backgrounds and career aspirations of education and noneducation majors. *Research and Evaluation in Teacher Education Program Evaluation.*Series No. 2 East Lansing, MI: Michigan State University, College of Education.
- Borkow, N., & Jordan, K. (1983). *The teacher workforce:* Washington, DC: Congressional Research Service, Library of Congress.
- Boser, J., et al. (1986). A comparision of participants in traditional and alternative teacher preparation programs (ERIC Document Reproduction Service No ED 278 648)
- Bowles, S. (1970). Towards an education production function. In W. Hansen (Ed.), Education, income and human capital (pp. 11-61). New York: Columbia University Press.
- Boyce, A. (1912). Qualities of merit in secondary school teachers. Journal of Educational Psychology. 3(3), 144-157.
- Brogdon, R., & Tincher, W. (1986). Higher aptitude high school students' opinion of career choics. Paper presented at the annual meeting of the Mid-South Educational Research Association.
- Brophy, J. (1982). Successful teaching strategies for the inner-city child. *Phi Delta Kappan, 63* (8), 527-530.
- Brownlee, G. (1985). The identification of teacher education candidates. In P. Burke & R. Heideman (Eds.), *Carreer-Long teacher education* (pp. 40-61). Springfield, IL: Thomas.
- Byers, J. (1984). The relation between academic aptitude and commitment to teaching among MSU students. (ERIC Document Reproduction Service No. ED 257 801)
- Carpenter, J. (1973). A survey of the criteria for the selection of undergraduate candidates for admission to teacher training. (ERIC Document Reproduction Service No ED 070 758)



- Chapman, D, & Hutcheson, S. (1982). Attrition from teaching careers: A discriminant analysis. American Educational Research Journal, 19 (1), 93-105.
- Clark, R., et al. (1984). Recruiting talent into public school teaching. *Journal of Teacher Education*, 35 (1), 2-4.
- Cornbleth, C. (1986). Ritual and rationality in teacher education reform. *Educational Researcher*, 15(4), 5-14.
- Darling-Hammond, L. (1984). Beyond the commission reports: The coming crisis in teaching Fort Worth, TX: Christian University Research Fund.
- Denton, J., & Smith, N. (1983). Alternative teacher preparation programs: A cost efficient comparision. *Research on evaluation program paper and report series no. 86.* Portland, OR: Northwest Regional Educational Laboratory.
- Downshower, S. (1982). Post-high school career progress of students attending Ohio's Martin W. Essex School for the Oifled, 1976-1980: A follow-up study. Unpublished doctoral dissertation, The Ohio State University.
- Dupuis, M. (1984). Good sign for education majors. *Education*, 8(2), 4
- Emanual, J., et al. (1975). The relation of selected academic program variables to student teaching performance. *Contemporary Education*, 46(4), 245-248.
- Empey, D. (1934). The greatest risk: Who will teach? *The Elementary School Journal*, 85(2), 167-176.
- Erickson, F. (1977). Some approaches to inquiry in school-community ethnography.

 Anthropology and Education Quarterly, 8(2), 58-69.
- Evans, S., et al. (1986). A comprehensive plan for attracting able students to teacher education. (ERIC Document Reproduction Service No ED 267 042)
- Evenden, E., et al. (1935). Teacher personnel in the United States. In *National survey of the education of teachers* (Vol. 2). Washington, DC: U.S. Government Printing Office.
- Feiman-Nemser, S., & Buchmann, M. (1986). The first year of teacher preparation. *Journal of Curriculum Studies*, 18 (3), 239-256.
- Faistritzer, C. (1983). *The condition of teaching* Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.
- Feistritzer, C. (1984). *The making of a teacher*: Washington, DC: National Center for Educational Information.
- Fisher, R. (1984). Education students fare well in Illinois survey. AACTE Briefs, 5(2), 13.
- Fisher, R., & Feldman, M. (1985). Some answers about the quality of teacher education students. Journal of Teacher Education, 36(3), 37-40.
- Fox, J. (1984). Restructuring the teacher workforce to attract the best and the brightest. *Journal of Education Finance*, 10(2), 214-237.



- Frantiani, J. (1979). Prediction of beginning teaching success from personal and program variables. Unpublished dostoral dissertation, University of Visconsin at Madison.
- Gallup, A., & Clark, D. (1987). The 19th annual Gallup poll of the public's attitudes toward the public schools. *Phi Delta Kappan*, 69(1), 17-30.
- Getzels, J., & Jackson, P. (1983). The teacher's personality and characteristics. In N. Gage (Ed.), Handbook of research on teaching (pp. 506-582). Chicago, IL: Rand McNally.
- Giroux, H. (1981). *Ideology, culture and the process of schooling* Philadelphia, PA. Temple University Press.
- Outlford, J. (1959). Personality: New York: McGraw-Hill.
- Hankins, B. (1982). Educational plans, career interests, and projected needs of intellectually gifted high school seniors in Mississippi Unpublished doctoral dissertation. University of Mississippi.
- Hanushek, E. (1972). Education and race Lexington, MA: Lexington.
- Holland, J. (1985). *The self-directed search: A guide to educational and vocational planning.* Odessa, FL: Psychological Assessment Resources.
- Holmes Group. (1986). Tomorrow's teachers East Lansing, MI: Author.
- Howard, R., & Goethals, M. (1985). Introducing talented high school students to teacher education. *Phi Delta Kappan*, 66(7), 511-512.
- Imig, D. (1985). Teacher education. In J. Mangieri (Ed.), Excellence in education (pp. 117-152). Fort Worth, TX: Texas Christian University.
- Ishler, R. (1984). Requirements for admission to and graduation from teacher education. *Phi Delta Kappan, 66*(2), 121-122.
- Jencks, C., et al. (1972) Inequality: New York: Harper & Row.
- Jenkins, H. (1978). The relationship of beginning teachers' scores on the National Teacher Examand other selected variables to their competency in teaching. Unpublished doctoral dissertation, Mississippi State University.
- Jones, M. (1956). Analysis of certain aspects of teaching ability. *Journal of Experimental Education*, 25(2), 153-181.
- Kemper, R., & Mangieri, J. (1987). America's future teaching force: Predictions and recommendations. *Phi Delta Kappan*, 68(5), 393-395.
- Krockover, θ ., et al. (1987). Comparing success predictors and common core course performance. *Action in Teacher Education*, 9(1), 61-65.
- Laman, A., & Reeves, D. (1982). A survey of criteria for admitting students to teacher education programs. Unpublished Manuscript, Western Kentucky University.
- Laman, A. & Reeves, D. (1983). Admission to teacher education programs. *Journal of Teacher Education*, 34(1), 2-4.



- Lanier, J. E., & Little, J. W. (1986). Research on teacher education. In M. C. Wittrock (Ed.), Handbook of research on teaching (3rd ed.)(pp. 527–569). New York: Macmillan.
- Loadman, W. (1983). Implementation and selected data findings on the Ohio State University Information System. Paper presented at the Evaluation Network Conference, Chicago, IL
- Lortie, D. (1975). Schoolteacher. Chicago, IL: University of Chicago Press.
- McIntyre, W. G., & Pratt, P. A. (1985). Characteristics of freshmen continuing and leaving a teacher education program at the end of their first year. (ERIC Document Reproduction Service No ED 264 186)
- Maguire, J. (1966). Factors in undergraduate teacher education relating to success in teaching. Unpublished doctoral dissertation, Florida State University.
- Mann, M., et al., (1986). The challenge of change: Attracting and retaining academically talented teacher candidates (ERIC Reproduction Service No. ED 272 432)
- Mark, J. & Anderson, B. (1985). Teacher survival rates in St. Louis, 1969-1982. American Educational Research Journal, 22(3), 413-421.
- Marshall, J., et al. (1987). The Brackenridge Internship in Teaching program. Teacher Education, 3/(2), 22-29.
- Mason, W. (1966). The beginning teacher: Washington, DC: U.S. Office of Education.
- Massey, H., & Yineyard, E. (1958). Relationship between scholarship and first year teaching success. Journal of Teacher Education, 9(3), 297–301.
- Metz, A., & Crane, J. (1980). New teachers on the job market Washington, DC: National Center for Educational Statistics, U.S. Department of Education.
- Miles, M., & Huberman, A. (1984). Qualitative data analysis: Beverly Hills, CA: Sage.
- Morsh, J. & Wilder, E. (1954). *Identifying the effective instructor*: United States Air Force Personnel Training Research Center, Research Bulletin.
- National Commission for Excellence in Teacher Education. (1985). A call for change in teacher education. Washington, DC: U.S. Government Printing Office.
- National Education Association, (1960). The teacher shortage analyzed. New Research Bulletin, (October): 68-74.
- National Education Association. (1982). Excellence in our schools (ERIC Document Reproduction Service No. ED 246 046)
- Nelli, E. (1981-82). Five myths in need of reality. Action in Teacher Education, 3(4), 1-6.
- Nelli, E. (1984). A research-based response to allegations that education students are academically inferior. *Action in Teacher Education*, 6(3), 73-80.
- Nelson, H. (1985). New perspectives on the teacher quality debate. Journal of Educational Research, 78(3), 133-140.



- Olsen, D. (1985). The quality of prospective teachers: Education vs. noneducation graduates Journal of Teacher Education. 36(5), 56-59.
- Pavalko, R. (1970). Recruitment to teaching. Sociology of Education, 43(3), 340-355.
- Perry, N. (1981). New teachers. Do the best get hired? Phi Delta Kappan, 63(4), 113-114.
- Pigge, F (1985). Teacher education graduates: Comparision of those who teach and do not teach. Journal of Teacher Education, 36(4), 27-28.
- Piper, M., & O'Sullivan, P. (1981). The National Teacher Examination. Can it predict classroom performance? *Phi Delta Kappan*, 62(1), 401.
- Popkewitz, T. S., Tabachnick, B. R., & Zeichner, K. M. (1979). Research in teacher education. Journal of Teacher Education, 30(5), 52-60.
- Pugach, M., & Raths, J. (1983). Testing teachers. Journal of Teacher Education, 34(1), 37-43.
- Quirk, T., et al. (1973). Review of studies of the concurrent and predictive validity of the National Teacher Examination. *Review of Educational Research*, 43(1), 89-113.
- Reagan, B. (1983). Quality assurance in education. American Education, 19(4), 19-22.
- Reed, D. (1986). Selection of promising high school gravates as future teachers: An experiment Unpublished doctoral dissertation, New York University.
- Riccobono, L. (1981). The national longitudinal study. *Data file users manual*. Research Triangle Park, NC: Center for Educational Research.
- Roberson, S., et al. (1983). Now who aspires to teach? Educational Researcher, 12(6), 13-21.
- Roth, R., et al., (1985-86). The university and the community: Partnership for excellence in teacher education. *Action in Teachers Education*, 7(4), 29-34.
- Ryans, D. (1960) Characteristics of teachers Washington, DC: American Council of Education.
- Saunders, R., & Smith, T. (1986). New way to prepare new teachers. State Educational Leader, 5 (2), 2-3.
- Savage, T. (1983). The academic qualifications of women choosing education as a major. *Journal of Teacher Education*, 34 (1), 14-19.
- Schalock, H. (1987a). The central question in teacher warranties: Quality assurance for what? Journal of Teacher Education, 38(5), 59-62.
- Schalock, M. (1987b). Teacher productivity: What is it? How might it be measured? Can it be measured? Journal of Teacher Education, 38(5), 59-62.
- Schlechty, P., & Vance, V. (1981). Do academically able teachers leave education? *Phi Delta Kappan.* 63(1), 106-112.
- Sears, J. (1984). A critical ethnography of teacher education programs at Indiana University An inquiry into the perceptions of students and faculty regarding quality and effectiveness. Unpublished doctoral dissertation, Indiana University.



- Sears, J. (1987). Credibility in teacher education. Unpublished manuscript.
- Sears, J., et al. (1986). A longitudinal study of a demonstration project related to the recruitment, preparation and retention of highly qualified persons for the teaching profession: The Brackenridge Interns the first year (ERIC Document Reproduction Service No. ED 272 454)
- Sears, J., et al. (1988). The political economy of teacher training: Attracting high ability persons into teaching, a critique Paper presented at the Eastern Educational Research Association Conference. Miami, FL. February 24-27.
- Sears, J. et al. (in press). *Teacher education policies and programs: Implementing reform proposals of the 1980s.* Chapel Hill, NC: Southern Educational Improvement Laboratory.
- Shanker, A. (1987). Tomorrow's teachers. Teachers College Record, 88(3), 423-429.
- Shim, C. (1965). A study of the cumulative effect of four teacher characteristics on the achievement of elementary school pupils. *Journal of Educational Research*, 59(1), 33–34.
- Shiring, J., & Crawley, F. (1983). Bringing honor to secondary teacher preparation programs. Journal of Teacher Education, 34(4), 18-20.
- Sieber, S. (1973). The integration of fieldwork and survey methods. *American Journal of Sociology*, 78(6), 1335-1359.
- Siegel, W. (1969). A study of the relationship between selected undergraduate academic achievement variables and teaching success Unpublished doctoral dissertation, Washington State University.
- Silverston, B. (1984). Classroom effectiveness and admission criteria for intern teachers: An empirical study. Unpublished doctoral dissertation,
- Sullivan, J. (1981). Women's career aspirations: A national survey of traditional and noniraditional aspirations of college freshmen. Unpublished doctoral dissertation, Florida State University.
- Summers, A., & Wolfe, B. (1975). When will school resources help learning? *American Economics Review*, 67(4), 639-652.
- Sykes, 6. (1983a). Teacher prepartion and the teacher workforce. *American Education, 19*(2), 23-30.
- Sykes, G. (1983b). Public policy and the problem of teacher quality. In L. Schulman (Ed.), Handbook of teaching and policy. New York: Longman.
- Tack, M. (1986). Recruiting the superior student for the teaching profession. *Contemporary Education*, 57(2), 75-79.
- Taylor, G., & Miller, P. (1985). Professional course work and the practicum: Do good students make good teachers? *Canadian Journal of Education*, 10 (32), 105-120.



- Thacker, J. (1965) A study of the relationship between principals' estimates of teaching efficiency and scores on national teacher examinations, academic avaerages, and supervisor's estimates of potential for selected teachers in North Carolina. Unpublished doctoral dissertation, University of North Carolina at Chapel Hill.
- Tiller, M. (1981). Identifying effective prospective elementary teachers with Piagetian cognitive level, GPA, and ACT. Unpublished doctoral dissertation, Northeast Louisiana University.
- Tom, A. R. (1980). The reform of teacher education through research: A futile quest. *Teachers College Record*, 82(1), 15-29.
- Vance, V, & Schlechty, P. (1982). The distribution of academic ability in the teaching force. *Phi Delta Kappan*, 64(1), 22-27.
- Vance, V., & Schlechty, P. (1983) Recruitment, selection, and retention. *The Elementary School Journal*. 83(4), 469-487.
- Villeme, M. & Hall, B. (1980). Preservice grades don't predict career success in teaching. *Phi Delta Kappan*, 62(2), 145.
- Villeme, M. & Hall, B. (1985). Higher ability teachers: How do they differ from lower ability teachers: I their use of selected teaching practices? *Action in Teacher Education*, 20(3), 27–30.
- Wahlstrom, M., & Daley, R. (1979). On the selection of teacher candidates. A systematic search for criteria. Toronto, Ontario: Ministry of Education.
- Washburne, C., & Heil, L. (1960). What characteristics of teachers affect children's growth? School Review, 68(4) 420-428.
- Weaver, W. (1978). Educators in supply and demand. School Review, 86(3) 552-593.
- Weaver, W. (1979). In search of quality. Phi Delta Kappan, 61(1), 29-32.
- Weaver, W. (1981). The talent pool in teacher education Journal of Teacher Education, 32(2), 32-36.
- Weaver, W. (1983). America's teacher quality problem. New York, NY: Praeger.
- Weaver, W. (1984). Solving the problem of teacher quality, Part I. *Phi Delta Kappan, 66*(2), 108-115.
- Wiley, P. (1986). The Lyndhurst Fellowship Program: An alternative preparation/certification program. *Tennessee Education*, 15(2), 18-22.
- Wimpleberg, R., & King, J. (1983). Rethinking teacher recruitment. *Journal of Teacher Education*, 34(1), 5-8.
- Wisniewski, R. (1986). Alternative programs and the reform of teacher education. *Action in Teacher Education*, 8(2), 37-44.

